For patients for whom more conservative therapy is unsuccessful, heart-lung transplantation remains the best option. Accurate prognostic indices for primary pulmonary hypertension patients have improved our ability to allocate transplantation rationally. Three-year survival rates in the best centers are 60% to 75%. Experience with single- and double-lung transplantation in patients with remediable right ventricular function has also been encouraging in the past two to three years, with survival similar to that of heart-lung transplant recipients in selected patients.

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Selective Decontamination of the Gastrointestinal Tract to Decrease the Incidence of Pneumonia and Mortality

INFECTIONS ACQUIRED in critical care units contribute to morbidity, mortality, and costs. Nosocomial pneumonia is of particular concern because of the need for prolonged ventilator care and an associated mortality in excess of 50%. Many nosocomial infections are caused by gram negative, aerobic enteric pathogens that colonize the nasopharynx.

An early study attempted to decrease colonization in trauma patients on mechanical ventilation. The study used an oral paste of polymyxin B sulfate, amphotericin B, and tobramycin applied to the oral mucosa four times a day, an oral suspension of the same drugs given four times a day, and intravenous cefotaxime sodium. A substantial decrease in the incidence of colonization and a decrease in the infection rate occurred. Historical controls were used, and criteria for infection were imprecise. No mortality data were provided.

Additional studies have suggested that selective decontamination reduces the incidence of respiratory tract infections. Criteria for infection in most series were not rigid, however, and only a weak association between infection and reduced mortality was found.

A recent randomized, controlled study of gastrointestinal tract decontamination in 150 patients reported only 7 cases of pneumonia: 4 of 75 in the control group and 3 of 75 in the treatment group. Unlike other decontamination studies that reported a pneumonia-incidence rate of about 40%, this study made a diligent effort to precisely diagnose pneumonia. Fewer deaths occurred among the patients whose gastrointestinal tracts were decontaminated, but the difference was not significant.

Investigators in France reported no increase in survival rates among treated patients who received mechanical ventilation in intensive care units. Furthermore, the cost of care in the treatment group was raised. In this study also, a diagnosis of pneumonia was supported by results of bronchoscopy with protected-brush specimens, and the incidence of pneumonia was only 15% in the placebo group and 12% in the decontamination group. In the placebo group, pneumonia was more often caused by aerobic gram-negative organisms, and in the treatment group it was more often due to *Staphylococcus* species. Decontaminating the gastrointestinal tract may reduce the production of endotoxin and decrease mortality. This study found no decrease in the incidence of multiple organ failures.

A recent well-controlled study with rigid criteria for the diagnosis of pneumonia found no decrease in the incidence of pneumonia, mortality, length of hospital stay, or the duration of mechanical ventilation. The duration of mechanical ventilation in the patients was 4 to 22 days.

At present the data for selective decontamination of the gastrointestinal tract do not support the belief that it decreases the incidence of pneumonia and associated mortality.

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Tropical Lung Disease

RARE INFECTIONS, exotic parasitic illnesses, and unfamiliar genetic or environmental diseases, once considered limited to the tropical and subtropical world, are now appearing with increasing frequency in the emergency departments and outpatient clinics of North American and European hospitals. Several of these diseases primarily affect the lungs. Modern pulmonologists must learn how to diagnose and treat tropical lung disorders and be aware of the possibility of an imported illness in every visitor, tourist, political refugee, or newly arrived immigrant examined.

Tuberculosis continues to be the most important of all medical problems in tropical and other developing countries. The main concern in the differential diagnosis is to recognize the unusual patterns of tuberculosis seen particularly in older patients, in persons with immunosuppression, and in those with drug-resistant disease. Pulmonary melioidosis and paragonimiasis, both endemic in Southeast Asia, can produce clinical and radiographic features that resemble those of pulmonary tuberculosis. These two diseases should be considered in any patient suspected of having